

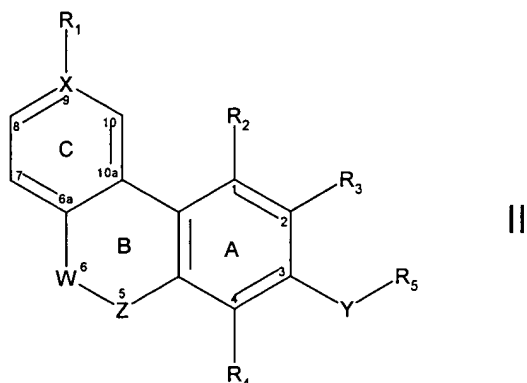
AMENDMENT TO THE CLAIMS

Please amend the claims as follows:

1. cancelled
2. (currently amended) The method of claim 11 4, wherein the electromagnetic radiation fluorescently emitted by the compound is in the ultraviolet-visible wavelength ranges.
3. cancelled
4. cancelled
5. (currently amended) The method of claim 11 4, wherein the step of detecting comprises quantifying the electromagnetic radiation fluorescently emitted by the compound.
6. cancelled
7. cancelled
8. cancelled
9. cancelled
10. cancelled

11. (currently amended) A method of using a fluorescent cannabinoid compound comprising:

providing a cannabinoid compound having structural formula II below or a physiologically acceptable salt thereof, wherein the compound has an endogenous fluorescent property; ~~The method of claim 6 wherein the compound comprises~~ compound formula II, and physiologically acceptable salts thereof,



wherein:

W is C=O; Z is O; X is selected from C and CH; Y is selected from NH, N-alkyl, and N=N;

R₁ is any possible member selected from H, halogen, N₃, NCS, CN, NO₂, NQ₁Q₂, OQ₃, OAc, O-acyl, O-aryl, NH-acyl, NH-aryl, CHO, C(halogen)₃, COOQ₃, PO₃H₂, SO₃H, SO₃alkyl, SO₂NQ₁Q₂, CONQ₁Q₂, alkyl and alkyl substituted in any possible position with at least one substituent group,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members,

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₂ is selected from H, OH, OCH₃, OPO₃H₂, OSO₃H, PO₃H₂, SO₃H, halogen, ~~NQ₁Q₂, COOQ₃, OQ₃, alcohol, NH-COalkyl, NH-COaryl, O-COalkyl, O-COalkyl-T₁, O-CO-T₁, CONQ₁Q₂, NH-COalkyl-T₄, NH-CO-T₄, O-alkyl-T₁[[,]] and O-T₁, NH-alkyl-T₄, NH-T₄, SO₃alkyl and SO₂NQ₁Q₂~~;

T₁ is in any possible position and is selected from PO₃H, SO₃H, an alkyl group containing from 1 to about 16 carbon atoms, tetrahydropyrrole, morpholine, thiomorpholine, piperazine, a heterocyclic ring and NQ₁Q₂,

T₁ is optionally ~~may be~~ substituted in any possible position with at least one member selected from a substituent group, OPO₃H₂, OSO₃H, PO₃H₂, a heterocyclic ring and a heteroaromatic ring,

~~Q₁ and Q₂ are each independently selected from H and alkyl, or~~

~~Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or~~

~~Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;~~

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₃ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and C1 to C4 alkyl,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;

R₄ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and C₁ to C₄ alkyl;

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members; and

R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂,

D₁, if present, is selected from alkyl, a carbocyclic ring, a heterocyclic ring, alkylamino and NH,

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, a bicyclic ring, a tricyclic ring, a heterocyclic ring, an aromatic ring, a heteroaromatic ring, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃, adamantan-2-ylidenemethyl-T₃, alkylamino, di-alkylamino and NH,

T₂ is selected from, in any possible position, a substituent group and -CO-T₄,

T₃ is an alkyl group having from 0 to about 9 carbon atoms,

T₄ is selected from H, C(halogen)₃, OH, NH₂, NO₂, alkyl, alkoxy, a heterocyclic ring and a heteroaromatic ring

exciting the cannabinoid compound with electromagnetic radiation; and

detecting the electromagnetic radiation fluorescently emitted by the cannabinoid compound.

12. cancelled

13. (currently amended) The method of claim 11 wherein R₁ is any possible member selected from H, halogen, OH, an alkyl group having 1 to about 5 carbon atoms and an

alkyl group having 1 to about 5 carbon atoms and substituted in any possible position with at least one member selected from OH, CHO, COOH, C(halogen)₃, N₃, NCS, CN, PO₃H₂, SO₃H and SO₃alkyl.

14. (previously presented) The method of claim 11 wherein R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂,

D₁, if present, is selected from alkyl, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members and 1,3 di-heteroatoms each heteroatom independently selected from O, S and N,

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, a bicyclic ring, a tricyclic ring, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃, adamantan-2-ylidenemethyl-T₃, alkylamino, di-alkylamino and NH

T₂ is selected from, in any possible position, a substituent group and -CO-T₄,

T₃ is an alkyl group having from 0 to about 9 carbon atoms, and

T₄ is selected from alkyl, a heterocyclic ring and a heteroaromatic ring.

15. (currently amended) The method of claim 11 wherein:

W is C=O;

X is C;

~~Y is selected from O, S, NH, N-alkyl, N=N, C=C and C≡C;~~

R₁ is selected from methyl, OH, CH₂OH, halogen and C(halogen)₃;

R₂ is selected from H, OH, OCH₃, OPO₃H₂, OSO₃H, ~~PO₃H₂, SO₃H, halogen, C(halogen)₃, NO₂, COOQ₃, OQ₃, NH-COalkyl, NH-CO-aryl, O-COalkyl, O-COalkyl-T₁, O-CO-T₁, NH-COalkyl-T₄, NH-CO-T₄, O-alkyl-T₁[[.]] and O-T₁, NH-alkyl-T₄, NH-T₄, SO₃alkyl, SO₂-NO₂Q₂ and CONO₂Q₂,~~

T₁ is in any possible position and is selected from PO₃H, SO₃H, an alkyl group containing from 1 to about 16 carbon atoms, tetrahydropyrrole, morpholine, thiomorpholine, piperazine, a heterocyclic ring and NQ₁Q₂,

T₁ is optionally ~~may be~~ substituted in any possible position with at least one member selected from a substituent group, OPO₃H₂, OSO₃H, PO₃H₂, a heterocyclic ring and a heteroaromatic ring,

~~Q₁ and Q₂ are each independently selected from H and alkyl, or~~

~~Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or~~

~~Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members,~~

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₃ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and an alkyl group having 1 to about 4 carbon atoms,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;

R₄ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and an alkyl group having 1 to about 4 carbon atoms,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members; and

R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂,

D₁, if present, is selected from a carbocyclic ring, a heterocyclic ring, alkylamino and NH,

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, a bicyclic ring, a tricyclic ring, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃, adamantan-2-ylidenemethyl-T₃, alkylamino, di-alkylamino and NH,

T₂ is selected from, in any possible position, a substituent group and -CO-T₄,

T₃ is an alkyl group having from 0 to about 9 carbon atoms,

T₄ is selected from H, C(halogen)₃, OH, NH₂, NO₂, alkyl, alkoxy, alkylamino, di-alkylamino, a heterocyclic ring and a heteroaromatic ring.

16. (currently amended) The method of claim 11 wherein:

W is C=O;

X is C;

~~Y is selected from O, S, NH, N-alkyl, N=N, C=C and C≡C;~~

R₁ is selected from methyl, OH and CH₂OH;

R₂ is selected from H, OH, OCH₃, OPO₃H₂, OSO₃H, ~~PO₃H₂, SO₃H, halogen, C(halogen)₃, alcohol, NO₂, COOQ₂, COOQ₃, OQ₃, NH-COalkyl, NH-CO-aryl, O-COalkyl, O-COalkyl-T₁, O-CO-T₁, NH-COalkyl-T₄, NH-CO-T₄, O-alkyl-T₁[[,]] and O-T₁, NH-alkyl-T₄, NH-T₄, SO₃alkyl, SO₂NO₂Q₂ and CONO₂Q₂~~

T₁ is in any possible position and is selected from PO₃H, SO₃H, an alkyl group containing from 1 to about 16 carbon atoms, tetrahydropyrrole, morpholine, thiomorpholine, piperazine, a heterocyclic ring and NQ₁Q₂,

T₁ is optionally ~~may be~~ substituted in any possible position with at least one member selected from a substituent group, OPO₃H₂, OSO₃H, PO₃H₂, a heterocyclic ring and a heteroaromatic ring,

~~Q₁ and Q₂ are each independently selected from H and alkyl, or~~

~~Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or~~

~~Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members,~~

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₃ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and an alkyl group having 1 to about 4 carbon atoms,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;

R₄ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and an alkyl group having 1 to about 4 carbon atoms,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members; and

R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂,

D₁, if present, is selected from an alkyl, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members and 1,3 di-heteroatoms each heteroatom independently selected from O, S and N,

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, alkylamino, d-alkylamino, NH, a bicyclic ring, a tricyclic terpene, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃ and adamantan-2-ylidenemethyl-T₃,

T₂ is selected from, in any possible position, a substituent group and -CO-T₄,

T₃ is an alkyl group having from 0 to about 9 carbon atoms, and

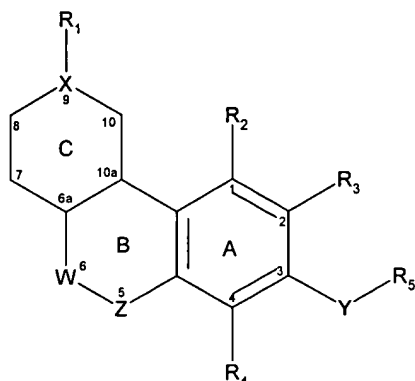
T₄ is selected from alkyl, C(halogen)₃ aminoalkyl, di-aminoalkyl, NH₂, a heterocyclic ring and a heteroaromatic ring.

17. (currently amended) The method of claim 11 4 comprising the step of combining the compound with a test sample.

18. (currently amended) The method of claim 11 4 comprising the step of interacting the compound with a cannabinoid receptor.

19. (currently amended) The method of claim 11 4 comprising the step of selectively interacting the compound with predominately one type of cannabinoid receptor.

20. (currently amended) A test kit ~~for detecting a fluorescent property~~ comprising a cannabimimetic compound having an endogenous fluorescent property and the structural formula



wherein:

Y is selected from O, S, NH, N-alkyl, [[N-substituted alkyl,]] and N=N[.],
C=C and C≡C;

Z is O; X is selected from C and CH; and

~~W is C=O and the C ring has a double bond in the 6a-10 position; or~~

~~R1 is =O and the C ring has a double bond in the 10-10a position; or~~

W is C=O and the C ring is aromatic[.];

R₁ is any possible member selected from halogen, N₃, NCS, CN, NO₂, NQ₁Q₂, OQ₃, OAc, O-acyl, O-aroyl, NH-acyl, NH-aroyl, CHO, C(halogen)₃, COOQ₃, PO₃H₂, SO₃H, SO₃alkyl, SO₂NQ₁Q₂, CONQ₁Q₂, alkyl and alkyl substituted in any possible position with at least one substituent group.

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members,

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₂ is selected from OH, OCH₃, OPO₃H₂, OSO₃H, OQ₃, O-COalkyl, O-COalkyl-T₁, O-CO-T₁, O-alkyl-T₁ and O-T₁,

T₁ is in any possible position and is selected from PO₃H, SO₃H, an alkyl group containing from 1 to about 16 carbon atoms, tetrahydropyrrole, morpholine, thiomorpholine, piperazine, a heterocyclic ring and NQ₁Q₂,

T₁ is optionally substituted in any possible position with at least one member selected from a substituent group, OPO₃H₂, OSO₃H, PO₃H₂, a heterocyclic ring and a heteroaromatic ring,

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₃ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and C1 to C4 alkyl,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;

R₄ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and C1 to C4 alkyl;

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members; and

R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂.

D₁, if present, is selected from alkyl, a carbocyclic ring, a heterocyclic ring, alkylamino and NH.

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, a bicyclic ring, a tricyclic ring, a heterocyclic ring, an aromatic ring, a heteroaromatic ring, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃, or adamantan-2-ylidenemethyl-T₃, alkylamino, di-alkylamino and NH.

T₂ is selected from, in any possible position, a substituent group and -CO-
T₄.

T₃ is an alkyl group having from 0 to about 9 carbon atoms.

T₄ is selected from H, C(halogen)₃, OH, NH₂, NO₂, alkyl, alkoxy, a heterocyclic ring and a heteroaromatic ring.

21. cancelled

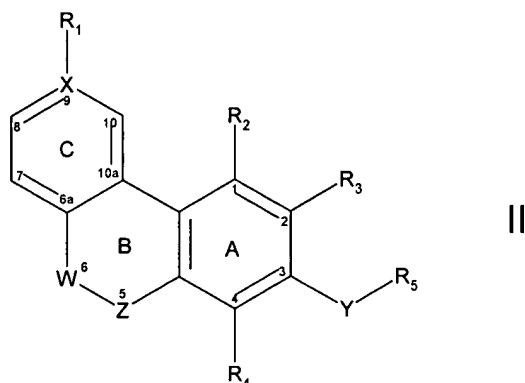
22. cancelled

23. cancelled

24. cancelled

25. cancelled

26. (currently amended) A The compound of formula II, and physiologically acceptable salts thereof,



wherein:

W is selected from C=O and C=S;

X is selected from C and CH;

Y is selected from O, S, NH, N-alkyl[[,]] and N=N[[,]] ~~C=C and C≡C~~;

Z is O;

R₁ is any possible member selected from H, halogen, N₃, NCS, CN, NO₂, NQ₁Q₂, OQ₃, OAc, O-acyl, O-aryl, NH-acyl, NH-aryl, CHO, C(halogen)₃, COOQ₃, PO₃H₂, SO₃H, SO₃alkyl, SO₂NQ₁Q₂, CONQ₁Q₂, alkyl and alkyl substituted in any possible position with at least one substituent group,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members,

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₂ is selected from H, OH, OCH₃, OPO₃H₂, OSO₃H, ~~PO₃H₂, SO₃H, halogen,~~
~~C(halogen)₃, alcohol, NQ₁Q₂, COOQ₃, OQ₃, alkyl hydroxyl, NH-COalkyl, NH-COaryl, O-~~
~~COalkyl, O-COalkyl-T₁, O-CO-T₁, SO₂NQ₁Q₂, CONQ₁Q₂, NH-COalkyl-T₄, NH-CO-T₄, O-~~
~~alkyl-T₁[[,]] and O-T₁, NH-alkyl-T₄, NH-T₄, SO₃alkyl and SO₂NQ₁Q₂,~~

T₁ is in any possible position and is selected from PO₃H, SO₃H, an alkyl group containing from 1 to about 16 carbon atoms, tetrahydropyrrole, morpholine, thiomorpholine, piperazine, a heterocyclic ring and NQ₁Q₂,

T₁ is optionally ~~may be~~ substituted in any possible position with at least one member selected from a substituent group, OPO₃H₂, OSO₃H, PO₃H₂, a heterocyclic ring and a heteroaromatic ring,

~~Q₁ and Q₂ are each independently selected from H and alkyl, or~~

~~Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or~~

~~Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;~~

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₃ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and C1 to C4 alkyl,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;

R₄ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and C1 to C4 alkyl;

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members; and

R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂,

D₁, if present, is selected from alkyl, a carbocyclic ring, a heterocyclic ring, alkylamino and NH,

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, a bicyclic ring, a tricyclic ring, a heterocyclic ring, an aromatic ring, a heteroaromatic ring, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃, adamantan-2-ylidenemethyl-T₃, alkylamino, di-alkylamino and NH,

T₂ is selected from, in any possible position, a substituent group and -CO-T₄,

T₃ is an alkyl group having from 0 to about 9 carbon atoms,

T₄ is selected from H, C(halogen)₃, OH, NH₂, NO₂, alkyl, alkoxy, a heterocyclic ring and a heteroaromatic ring

but if W is C=O and Y is O then R₅ is not CH₂COOH or CH₂COOEt.

27. cancelled

28. (currently amended) The compound of claim 26 wherein R₁ is any possible member selected from H, halogen, C(halogen)₃, alkyl amino, di-alkylamino, NH₂, OH, an alkyl group having 1 to about 5 carbon atoms and an alkyl group having 1 to about 5 carbon atoms and substituted in any possible position with at least one member

selected from OH, CHO, COOH, C(halogen)₃, N₃, NCS, CN, PO₃H₂, SO₃H and SO₃alkyl.

29. (previously presented) The compound of claim 26 wherein R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂,

D₁, if present, is selected from alkyl, a carbocyclic ring having 4 to 6 ring members and a heterocyclic ring having 4 to 6 ring members and 1,3 di-heteroatoms each heteroatom independently selected from O, S and N,

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, a bicyclic ring, a tricyclic terpene, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃, adamantan-2-ylidenemethyl-T₃, alkylamino, di-alkylamino and NH

T₂ is selected from, in any possible position, a substituent group and -CO-T₄,

T₃ is an alkyl group having from 0 to about 9 carbon atoms, and

T₄ is selected from alkyl, a heterocyclic ring and a heteroaromatic ring.

30. (currently amended) The compound of claim 26 wherein:

~~W is C=O;~~

X is C;

R₁ is selected from methyl, OH, CH₂OH, halogen and C(halogen)₃;

R₂ is selected from H, OH, OCH₃, OPO₃H₂, OSO₃H, ~~PO₃H₂, SO₃H, halogen, C(halogen)₃, alcohol, NQ₁Q₂, COOQ₃, OQ₃, NH-COalkyl, NH-CO-aryl, O-COalkyl, O-COalkyl-T₁, O-CO-T₁, NH-COalkyl-T₄, NH-CO-T₄, O-alkyl-T₁[[,]] and O-T₁, NH-alkyl-T₄, NH-T₄, SO₃alkyl, SO₂NQ₁Q₂ and CONQ₁Q₂~~

T₁ is in any possible position and is selected from PO₃H, SO₃H, an alkyl group containing from 1 to about 16 carbon atoms, tetrahydropyrrole, morpholine, thiomorpholine, piperazine, a heterocyclic ring and NQ₁Q₂,

T₁ is optionally ~~may be~~ substituted in any possible position with at least one member selected from a substituent group, OPO₃H₂, OSO₃H, PO₃H₂, a heterocyclic ring and a heteroaromatic ring,

~~Q₁ and Q₂ are each independently selected from H and alkyl, or~~

~~Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or~~

~~Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members,~~

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₃ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and an alkyl group having 1 to about 4 carbon atoms,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;

R₄ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and an alkyl group having 1 to about 4 carbon atoms,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members; and

R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂,

D₁, if present, is selected from alkyl, a carbocyclic ring, a heterocyclic ring, alkylamino and NH,

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, a bicyclic ring, a tricyclic ring, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃, adamantan-2-ylidenemethyl-T₃, alkylamino, di-alkylamino and NH,

T₂ is selected from, in any possible position, a substituent group and -CO-T₄,

T₃ is an alkyl group having from 0 to about 9 carbon atoms,

T₄ is selected from H, C(halogen)₃, OH, NH₂, NO₂, alkyl, alkoxy, alkylamino, di-alkylamino, a heterocyclic ring and a heteroaromatic ring.

31. (currently amended) The compound of claim 26 wherein:

~~W is C=O;~~

X is C;

R₁ is selected from methyl, OH and CH₂OH;

R₂ is selected from H, OH, OCH₃, OPO₃H₂, OSO₃H, ~~PO₃H₂, SO₃H, halogen, C(halogen)₃, alcohol, NQ₁Q₂, COOQ₃, OQ₃, NH-COalkyl, NH-CO-aryl, O-COalkyl, O-COalkyl-T₁, O-CO-T₁, NH-COalkyl-T₄, NH-CO-T₄, O-alkyl-T₁[[,]] and O-T₁, NH-alkyl-T₄, NH-T₄, SO₃alkyl, SO₂NQ₁Q₂ and CONQ₁Q₂~~

T₁ is in any possible position and is selected from PO₃H, SO₃H, an alkyl group containing from 1 to about 16 carbon atoms, tetrahydropyrrole, morpholine, thiomorpholine, piperazine, a heterocyclic ring and NQ₁Q₂,

T₁ is optionally ~~may be~~ substituted in any possible position with at least one member selected from a substituent group, OPO₃H₂, OSO₃H, PO₃H₂, a

heterocyclic ring and a heteroaromatic ring,

~~Q₁ and Q₂ are each independently selected from H and alkyl, or~~

~~Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or~~

~~Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members,~~

Q₃ is selected from H, alkyl, alcohol and alkyl-NQ₁Q₂;

R₃ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and an alkyl group having 1 to about 4 carbon atoms,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members;

R₄ is selected from H, OH, halogen, C(halogen)₃, CN, N₃, NCS, NQ₁Q₂ and an alkyl group having 1 to about 4 carbon atoms,

Q₁ and Q₂ are each independently selected from H and alkyl, or

Q₁ and Q₂ together comprise part of a heterocyclic ring having about 4 to about 7 ring members and optionally one additional heteroatom selected from O, N and S, or

Q₁ and Q₂ together comprise part of an imide ring having about 5 to about 6 members; and

R₅ is selected from -D₁-D₂-T₂ and -D₂-T₂,

D₁, if present, is selected from alkyl, a carbocyclic ring having 4 to 6 ring

members and a heterocyclic ring having 4 to 6 ring members and 1,3 di-heteroatoms each heteroatom independently selected from O, S and N,

D₂ is selected from an alkyl group having from one to about sixteen carbon atoms, alkylamino, di-alkylamino, NH, a bicyclic ring, a tricyclic ring, 1-adamantyl-T₃, 2-adamantyl-T₃, adamantan-1-ylmethyl-T₃ and adamantan-2-ylidenemethyl-T₃,

T₂ is selected from, in any possible position, a substituent group and -CO-T₄,

T₃ is an alkyl group having from 0 to about 9 carbon atoms, and

T₄ is selected from alkyl, C(halogen)₃ aminoalkyl, di-aminoalkyl, NH₂, a heterocyclic ring and a heteroaromatic ring.

Claims 32-40. cancelled

41. cancelled

42. (previously presented) A pharmaceutical composition comprising a therapeutically effective amount of at least one compound from claim 26 or a physiologically acceptable salt thereof.

43. cancelled

44. (currently amended) A method of stimulating a at least one of the CB1 and CB2 cannabinoid receptors ~~receptor~~ in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of at least one compound from claim 26 or a physiologically acceptable salt thereof.